

ters. Sir J. D. Hooker, Fl. Brit. India 4: 295. 1884, assures us that the plant lacks distinctness—"I cannot distinguish it as a variety even"—and in confirmation of his statement that "the seeds vary much in depth of pitting," it may be mentioned that Reichenbach's plate cited by Boissier as illustrative of true *biloba* shows seeds deeply rugulose. Our plants seem quite intermediate, with the leaf-breadth and leaf-serration of *biloba*, but with the pedicels tending slightly to recurve and with the seeds and style as described for *campylopoda*. They match well a specimen of Boissier's collected at Roscheya, Syria, May, 1846, and named by him *Veronica campylopoda*.

17. VERONICA HEDERAEFOLIA L.

*Veronica hederæfolia* L., Sp. Pl. 13. 1753. "Habitat in Europæ ruderatis." Diagnosis quoted from Linné, Fl. Suec. 7. no. 18. 1745, where the plant is said to occur "in Scania [Sweden] campestri in ruderatis ad urbes & pagos." Specimen from Sweden, from herbarium of Per Larson, seen in Herb. Columbia University.

(?) *Veronica reniformis* Raf. in Med. Repos. New York 5: 360. 1808. "In New Jersey [C. S. Rafinesque in 1803-4]." I am unable to be certain of the identity of this from the short description: "stem procumbent, branched ['branded'], leaves sessile, reniform, hairy, entire, flowers axillar, solitary." It is possibly *V. hederæfolia* L., in which case the petioles must have been so short as to be unnoticed, or *V. arvensis* L., with unusually obscure serration of leaf, or else some introduced species not since reported from America.

Orchards and roadsides, occasional from New York to North Carolina. Introduced from Europe.

(To be continued.)

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THE NORTH AMERICAN REPRESENTATIVES OF SCIRPUS  
CESPITOSUS.

M. L. FERNALD

THE common sedge, *Scirpus cespitosus* L.<sup>1</sup> which forms conspicuous wiry tussocks and often the dominant turf in the acid tundra and barren regions of the North and in America extends southward to the eastern coast and the mountains of New England, the Adirondacks,

<sup>1</sup> The name was originally published by Linnaeus as *cespitosus* and there is, therefore, no need to alter it, as is often done, to *caespitosus*.



the highest of the southern Alleghenies, bogs of the Great Lake States, and the mountains of Alberta and Washington, is essentially uniform throughout its broad range in North America and agrees with the plant of northern Asia and of northernmost and alpine Europe. In Europe, however, there is another plant which differs in some striking characters from the circumpolar form and which in Great Britain and the lower regions of Scandinavia, Denmark, France and Germany is known as *S. cespitosus*. In the latter plant the orifice of the upper sheath (at the base of the culm) is obliquely elongate, commonly more than 3 mm. long, and scarious-margined; the castaneous or purple spikelets are 6–8 mm. long and 5–8-flowered; and the perianth-bristles are usually upwardly barbellate. This is the plant designated by Palla as *Trichophorum germanicum*,<sup>1</sup> and taken up by Ascherson & Graebner as *S. cespitosus*, *B. germanicus* (Palla) Aschers. & Graebn.,<sup>2</sup> an entirely unnecessary combination since as early as 1789 it had been designated as *S. cespitosus*,  $\beta$ . *nemosus* Roth.<sup>3</sup> It is well shown in the *English Botany*, t. 1029, or in Syme's edition, x. t. 1590, in *Flora Danica*, xi. t. 1861 and in Reichenbach's *Icones Florae Germanicae*, viii. t. 300, figure at left.

The wide-ranging circumpolar and alpine plant, on the other hand, has the orifice of the sheath about 1 mm. long and with a firm border; the stramineous or merely somewhat pale-brown spikelets 2–6 mm. long and 2–4-flowered and the perianth-bristles smooth or barely roughened. This is the plant designated by Palla as *Trichophorum austriacum*<sup>4</sup> and taken up by several European botanists as *Scirpus cespitosus*, *B. austriacus* (Palla) Aschers. & Graebn.<sup>5</sup>

Linnaeus included both plants in the *Species Plantarum*, but the "*Habitat in Europae paludibus cespitosis sylvaticis*" indicates that he had primarily in mind the plant of the lower altitudes, i. e., *S. cespitosus*, var. *nemosus* Roth or *Trichophorum germanicum* Palla = *S. cespitosus*, *B. germanicus* (Palla) Aschers. & Graebn.

The circumpolar plant in some characters appears at first glance to be specifically distinct but it shows no constant difference in the fruit and some European plants, which in other characters are typical *S. cespitosus*, lack the barbs on the perianth-bristles. It is, therefore,

<sup>1</sup> Palla, *Berichte Deutsch. Bot. Gesellsch.* xv. 468 (1897).

<sup>2</sup> Aschers. & Graebn. *Fl. Nordostd. Flachl.* 135 (1898).

<sup>3</sup> Roth. *Tent. Fl. Germ.* ii. 53 (1789).

<sup>4</sup> Palla, *l. c.* (1897).

<sup>5</sup> Aschers. & Graebn. *Syn. Mitteleurop. Fl.* ii. Ab. 2, 300 (1904).



safest to treat the two plants, as most European students are doing, as two well marked geographic varieties. But, fortunately, the circumpolar variety, the plant now so generally called in Europe *S. cespitosus*, var. *austriacus*, cannot retain that name, so inappropriate for a circumpolar plant. Long before Palla had pointed out the differences between the extremes, Jacob Bigelow, finding the circumpolar plant on the White Mountains of New Hampshire and thinking, obviously from collections in different states of development, that he had two new species, described them as

“*Scirpus obtusus*—*Culmo tereti, nudo, monostachyo; spica lanceolata, squamis apice carnosis, obtusis*”

and as

“*Scirpus bracteatus*—*Culmo tereti, monostachyo; spica ovata, bracteis involucreta; flosculis monandris.*”<sup>1</sup>

Bigelow's *S. bracteatus* was obviously over-ripe (*spica ovata*) and his “*flosculis monandris*” an error due to the loss of some stamens, but Rafinesque characteristically rushed it into a new genus as *Aplostemon bracteatum*, “my genus *Aplostemon*, containing all the species of *Scirpus* with one stamen.”<sup>2</sup>

Bigelow soon thereafter received from Europe material of true *Scirpus cespitosus* and accordingly reduced his two species to *S. cespitosus*, var.  $\beta$ . *callosus*,<sup>3</sup> the name which the plant treated as a variety should bear. If the plant is treated as a species it should be called *S. bracteatus* Bigel., the name *S. obtusus* having been pre-empted by Willdenow.

The nomenclature of the circumpolar plant may be summarized as follows:

SCIRPUS CESPITOSUS L., var. CALLOSUS Bigelow, Fl. Bost. ed. 2, 21 (1824). *S. obtusus* and *S. bracteatus* Bigel., N. E. Journ. Med. v. 335 (1816). *Aplostemon bracteatum* (Bigel.) Raf., Am. Mo. Mag. i. 441 (1817). *Trichophorum austriacum* Palla, Berichte Deutsch. Bot. Gesellsch. xv. 468 (1897). *S. cespitosus*, B. *austriacus* (Palla) Aschers. & Graebn. Syn. Mitteleurop. Fl. ii. Ab. 2, 300 (1904).

Var. *callosus*, the common American form of *S. cespitosus* is typical of acid bogs and tundra and, in eastern America at least, the peaty alpine regions of our granitic mountains. It forms stiffly resistant tussocks, with wiry culms and firm stramineous basal

<sup>1</sup> Bigel., N. E. Journ. Med. v. 335 (1816).

<sup>2</sup> Raf., Am. Mo. Mag. i. 441 (1817).

<sup>3</sup> Bigel. Fl. Bost. ed. 2, 21 (1824).



sheaths. Contrasted with the ubiquitous plant of acid peats is the representative of the species on slaty or calcareous ledges and gravels along the St. John and Aroostook Rivers in Maine. There the plant of sweet or basic ledges and gravel is associated with such calcicolous species as *Scirpus Clintonii* Gray, *Equisetum variegatum* Schleich., *Trisetum melicoides* (Michx.) Vasey, *Rynchospora capillacea* Torr., *Carex interior* Bailey, *Tofieldia glutinosa* (Michx.) Pers., *Viola nephrophylla* Greene, *Primula mistassinica* Michx., etc., and although in its spikelet, achene, bristles and short leaf-blade the plant suggests *S. cespitosus*, var. *callosus*, it forms comparatively soft tussocks, with almost filiform culms far less rigid than in var. *callosus*, and its very closely crowded culms are subtended by submembranaceous or scarious very narrow blackish or lead-colored scales. The same extreme variant occurs on the slaty gravel of the Gander River in Newfoundland, there associated with essentially the same species, so that the plant seems to be a definite variety characteristic of such habitats. As such it is here proposed as

*SCIRPUS CESPITOSUS* L., var. **delicatulus**, n. var., a var. *calloso* recedit culmis filiformibus vix rigidis, vaginis imis nigrescentibus vel griseis submembranaceis vel scariosis.—NEWFOUNDLAND: gravelly bank of Gander River, Glenwood, July 12 and 13, 1911, *Fernald, Wiegand & Darlington*, no. 4760. MAINE: abundant, wet gravelly or ledgy bank of St. John River, Fort Kent, June 16, 1898, *Fernald*, no. 2097 (TYPE in herb. New England Botanical Club). St. Francis, June 18, 1898, *Fernald*, no. 2098; ledgy bank of Aroostook River, Masardis, September 8, 1897, *Fernald*; wet sandy shore of Aroostook River, Fort Fairfield, July 5, 1893, *Fernald*, no. 121.

GRAY HERBARIUM.

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A FREAK SWEET CLOVER.—Mr. B. W. Cooney, County Agriculturist, Goldendale, Washington, recently found and sent to Washington State College a "sample of sweet clover plant which has the appearance of being a Sport." He discovered it at Glenwood in a cultivated field of the plant, 45 acres in extent. The specimen shows five feet of the top of a vigorous well branched plant. The leaves are mostly withered and gone. The main and lateral branches bear numerous inflorescences. The younger ones that are still in bud are more densely puberulent than is usual in specimens of this species,